CONSERVATION LANDSCAPE PROGRAM

CONSERVATION OF DRY FOREST ECOSYSTEMS IN THE CARIBBEAN

QUARTERLY PERFORMANCE REPORT

1. PROJECT FACT SHEET

NAME OF THE PROJECT:

1.1. Conservation Landscapes Program - CLP Dry Ecosystem Conservation in the Caribbean.

1.2. DATES (START/FINISH)

AGREEMENT/CONTRACT

4/12/2013 TO 9/12/2015

REPORT PERIOD

01/10/2014 TO 31/12/2014

1.3. PRIME

1.4. NAME OF PROGRAM MANAGER: INÉS CAVELIER

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1.5. NAME OF USAID AGREEMENT OFFICE REPRESENTATIVE (AOR): Ximena García

1.6. NAME OF ALTERNATE AOR: Christopher Abrams

1.7. USAID MECHANISM NUMBER: AID-514-A-09-00004

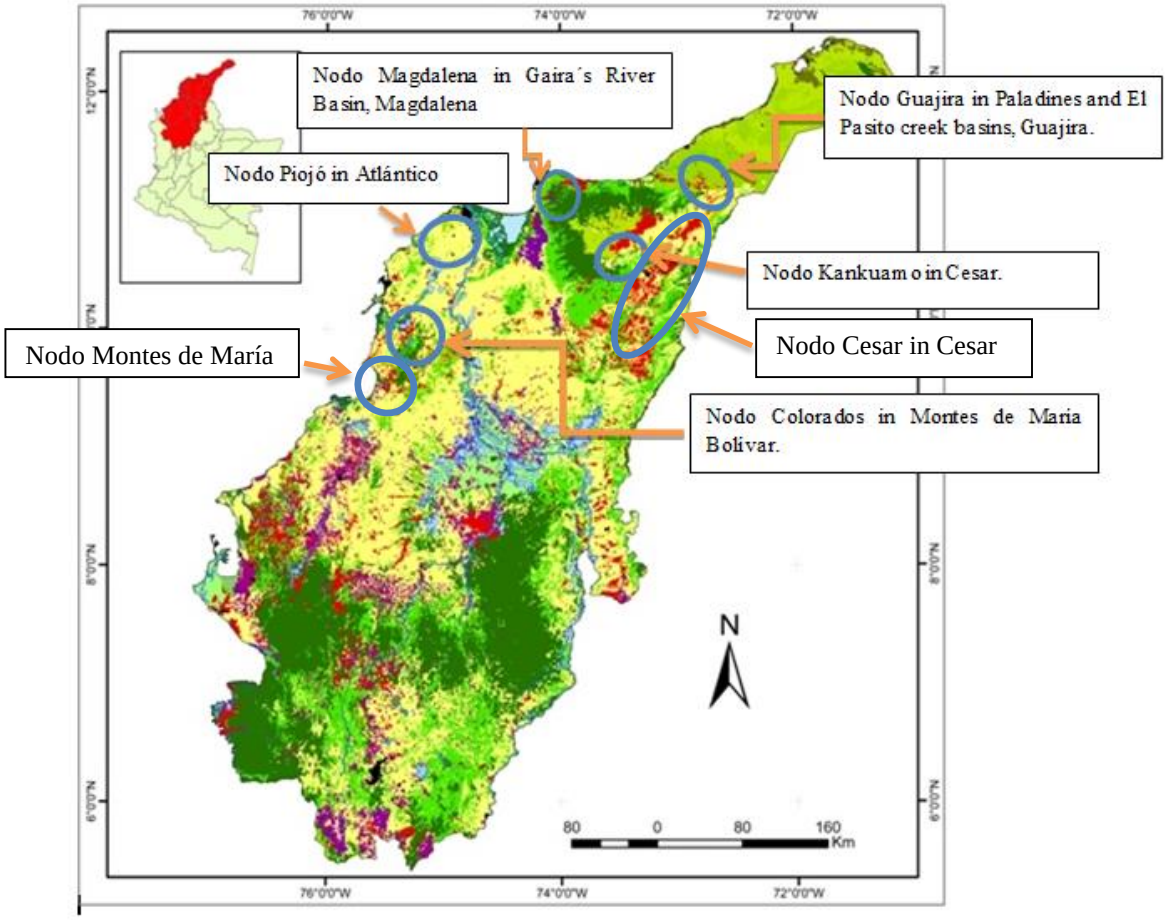
1.8. OVERALL PROGRAM DESCRIPTION: The Caribbean region (13 million hectares), encompasses more than six million ha. of tropical dry forest ecosystem (TDFE) in Colombia, of which 82% has been affected by deforestation. TDFE conservation is a priority for USAID and Colombia, thus, the CLP objective is improving TDFE´s governance, biodiversity and the preservation of natural resources in the Caribbean region and strengthening environmentally sustainable livelihoods for the associated communities. Remaining forest patches coupled with existing protected areas and communities will be the center of conservation efforts. The focus will be to implement land use management tools at the landscape level, restoring connectivity with a biodiversity-friendly productive matrix and ecological corridors. Improved smallholder agroforestry practices, installing connectivity tools in larger agricultural areas, implementing silvo-pastoral systems and sustainable use of natural resources will guarantee ecological integrity by enhancing connectivity, covering soils to prevent erosion, promoting watershed protection and maintaining species diversity. GOC´s regional environmental authorities will be strengthened through the Regional Protected Area System - SIRAP Caribe. Main beneficiaries are the indigenous, campesino communities and local organizations associated with the target areas. NGO´s will develop proposals combining economic, environmental and social components, addressing the main threats on TDFE with community participation and capacity-building. Public/private alliances will be fostered for sustainable production and other public stakeholders will be engaged for better decision-making related to TDFE conservation. Caribbean TDFE will benefit from improved management of protected areas and especially from connectivity strategies to counter fragmentation as main tools for conservation. Improved access to water and production systems' management seek to enhance productivity and livelihoods, especially for women in charge of obtaining water for daily use. Involving the private sector through off-setting mechanisms, Social Corporate Responsibility programs or green economy measures will benefit TDFE conservation by protecting ecosystem services.

2. ACHIEVEMENTS OVERVIEW

This quarter one new agreement was signed and three agreements concluded activities. The new agreement was signed for COP228.238.000 for the development of the conservation-production strategy in Montes de María in Corregimiento El Salado, municipality of Carmen de Bolivar with Fundación Semana (Map 1). On Nodo Kankuamos and Nodo Piojó agreements concluded implementation activities resulting in 116.58 hectares of conservation corridors and 3 communities adopting sustainable practices to improve biodiversity conservation. The third agreement that concluded was executed by Minka-Dev to develop a business model for the corozo palm. The business model included the indigenous people from el Cabildo Menor de San Antonio, an environmental NGO called Cudesac, the restaurant chain Wok, the exotic fruit pulp trader Selva Nevada, and the phyto-pharmaceutical laboratory Labfarve, and is actually under a very promising pilot phase. In the pilot the indigenous people from Cabildo Menor de San Antonio will sell the corozo pulp to Selva Nevada while Labfarve researches the possibility of including the corozo fruit in the cosmetic or health industry.

Regarding the production-conservation corridors the main achievements were the implementation of 64 hectares of agroforestry systems in Nodo Colorados, 34 hectares in Nodo Magdalena, and the registration in Parques Nacionales Naturales de Colombia for the creation of four private reserves in Nodo Cesar.

Lastly, after researching about the emerging efficient cook stove sector and in the effort to build them at accessible prices with high quality standards, the necessity to strengthen the sector through government institutions arose. Following this need, an agreement for USD55.000 was signed with the Global Alliance for Clean Cook stoves to design and implement the first international clean cook stoves workshop for Colombian institutions, and a web page to show state of the art technologies, successful cases, and best practices. In this workshop several governmental, and clean cookstoves related institutions were present, and the main conclusion of the workshop was that institutional alignment coupled with a coherent implementation strategy were urgent in the country. These actions in union with the case of the co-designed Caribbean stove are expected to show lawmakers how to develop the clean cook stoves sector fast and with international standards.



Map 1. Locations of the programs Nodos.

2.1. COMPONENTS

2.1.1. Component 1 –Improved licit and Sustainable Livelihoods

Actually, there are seven locations where the development of production-conservation corridors are taking place: Nodo Colorados, Nodo Guajira, Nodo Magdalena, Nodo Cesar, Nodo Kankuamos and Nodo Piojó where implementation activities concluded, and this quarter a new agreement was signed at Nodo Montes de María, Bolivar with Fundación Semana (Map 1).

In Nodo Colorados activities are focused in connecting Los Colorados Fauna and Flora Sanctuary with Cerro Maco in the department of Bolivar. In this Nodo, emphasis was made in the implementation of production systems, although advances on isolations, tree planting and signing of additional 14 conservation agreements took place. Also, 64 hectares of sustainable production were implemented through agroforestry systems with fruit trees such as orange, lemon, guava, avocado, and mango, and wood trees such as oak, cedar, caracolí,

carreto, and camajón. Additionally, 28 families have received hens for their recently constructed hen houses and 7 beehives with training workshops in bee keeping. Finally, three demonstrative plots of contour lines and infiltration trenches were constructed to teach the community how this technology can help to prevent erosion, flooding, and managing storm water (Picture 1).

Picture 1: Contour lines and infiltration trench plot.

In Nodo Guajira, where an agreement has been signed to increase the connectivity of forest patches in the Paladines and Pasito river micro-basins, there is an overall delay in activities that is being addressed at the moment. The main problems have been the difficulties finding wood posts for the isolation activities and the lack of time from the beneficiaries to work in the water reservoirs. On the other hand, three meetings with the river basin committees for institutional strengthening have taken place and an organization was created for the management and conservation of the District of Integrated Management (DMI for its initials in Spanish) El Cerro de Bañaderos. Additionally, one water reservoir was built achieving four in total and six rain harvesting systems with 2000 liter tanks were completed, to reach a total of 13.

Regarding Nodo Magdalena, the main achivement was the implementation of 34 hectares of agroforestry systems with the asociation beween subsistence crops and mango trees (Picture 2), and at Nodo Cesar, the Fundación Carboandes

registered four potential new private natural reserves in Parques Nacionales Naturales de Colombia (Table 1 and Table 1).

Picture 2: Agroforestry systems in río Gaira.

Name	Total area	Conservation area
La Helenita	191	50
Las Nubes	56	25
Nueva Delhi	144	102
La Nacional	86	86
Total	**477**	**263**

Table 1: Private reserves registered to Parques Nacionales.

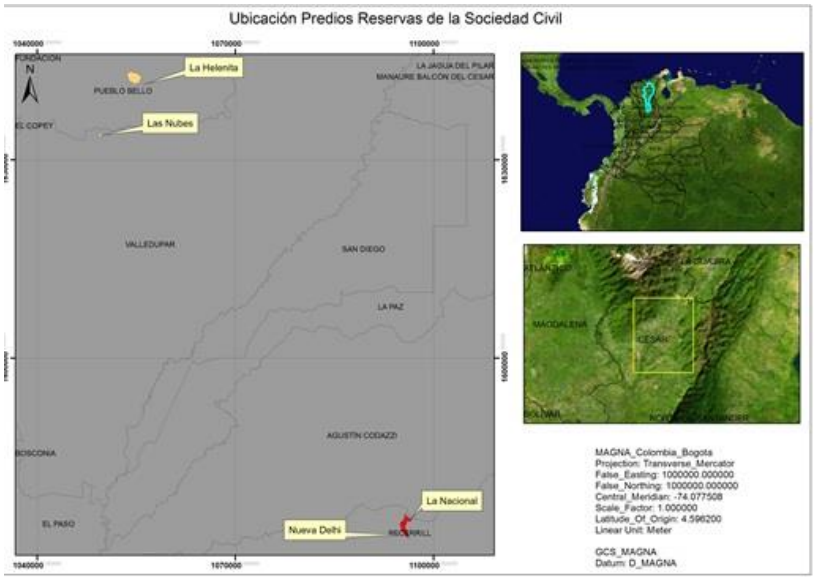


Figure 1: Location of private reserves registered to Parques Nacionales.

Implementation activities of two agreements were concluded this quarter regarding conservation-production corridors in Nodo Kankuamos and Nodo Piojó. On Nodo Kankuamos the agreement to link El Santuario de Vida Silvestre Besotes with the region of Murillo was concluded on December 19 for a total value of COP253.624.294 with a contribution from CLP of COP169.033.953. The performance indicators from this agreement are shown on Table 2. The main achievements where the signature of 29 conservation agreements with their related conservation-production farm plans, the isolation of 62,5 hectares (11,478 lineal meters) along important water sheds, the implementation of 29 hen houses, the construction of 29 water supply systems with water tanks of 1000 liters for domestic use or crop irrigation (Picture 3), four training workshops on sustainable crop managing, and an agreement signed by the indigenous community and the Kankuamo authorities providing the general guidelines for the conservation and management of Rio Seco (Annex 3). Regarding the difficulties, implementing the crops and agroforestry systems had to be retired from the project due to planning deficiencies at the beginning of the project coupled with an abnormal dry season that prevented planting trees and growing crops, the alternative was to install irrigation systems to mitigate the risks of future dry seasons. Given these delays in implementation, amendments to the initial agreement had to be done to postpone and change products, and reduce the overall amount of money. As a result of changing the scope of the initial production activities, the initial goal of reaching 140 people under indicator DO4-003 (number of people with increased economic benefits derived from sustainable natural resource management and conservation as a result of USG assistance) did no apply for this agreement.

Indicator	Goal	Achieved goal	Verification sources
Indicator DO4-001. Number of hectares of biological significance and/or natural under improved natural resource management as a result of USG assistance (F4.8.1-26)	953	1143	• Farm plans. • Isolated areas map. • Conservation agreements. • Format for the collection of data of implemented hectares.
Indicator DO4-012. Number of communities and other stakeholders adopting sustainable practices to improve biodiversity conservation.	1	1	• Document of the general guidelines for the conservation and management of Rio Seco (Annex 3).
F 4.8.1-29. Number of person hour of training in natural resources management and/or biodiversity conservation supported by USG assistance.	120	525	• Composting training memories, Organic Pest and Disease Management memories, Construction and Management of Plant Nurseries.

Table 2: Nodo Kankuamos final indicators.

Picture 3: Irrigation systems built on Nodo Kankuamos.

Another agreement that has finished field activities is Fundación Ecosistemas Secos in Nodo Piojo, which is now on the final process of reviewing the project. The objective of this agreement was to design and implement the connectivity corridors to link the forest reserve El Palomar with the regions of Guaybanal and Macondal in Nodo Piojó. Although a complete review will be provided on the next quarter report after a complete verification, the main achievements of this project were the isolation of 6.923 lineal meters corresponding to 54.08 hectares of connectivity corridor (Picture 4), 11 conservation agreements signed, the creation of a plant nursery that provided 7.507 wood and fruit tree species to plant in the corridors, and Guaybanal and Macondal communities adopting better practices to improve biodiversity conservation. Following the work done by Fundación Ecosistemas Secos, Fundación FES is implementing production systems and assuring the sustainability of the corridors. To assure the sustainability of the corridors, 12 conservation-production farm plans have been done covering 148 hectares, from which a third will be left for conservation. Additionally, an initial socioeconomic characterization was done, hen houses started construction, and a proposal for the investigation of soil erosion with 3 universities was created.

Picture 4: Ana Saltarín showing her isolation on Nodo Piojó.

Finally, one new agreement was signed from October 2014 to August 2015 for the development of the production-conservation strategy with Fundación Semana. This agreement was signed for COP 620.823.000 from which CLP will contribute with COP228.238.000, and its objective is to design and implement production systems for the conservation of resources associated with the production: water, forest, land and seeds for 50 families in the rural area of El Salado, Bolivar. Since Fundación Semana has great influence over the region of Montes de María it will be called Nodo Montes de María, from now on. One of the main focuses of this agreement is to provide farmers access to local or foreign markets where buyers can differentiate the product value chain and the offer of diverse products. On this quarter initial pilots were conducted leading to the first sale of a local variety of beans, sesame, and paprika to a national restaurant chain called Crepes & Waffles and a business called La Canasta. Also, an initial meeting between the local procurement department of Crepes and Waffles and campesino associations from el Salado and San Juan Nepomuceno took place to explore business opportunities (Picture 5).

Picture 5: First bean sale and the first meeting of the campesino families and Crepes & Waffles.

On the other hand, the search of an inclusive business model for the corozo palm with Minka-Dev has concluded. In the resulting business model the indigenous people from el Cabildo Menor de San Antonio collect the corozo fruit and then transform it into corozo pulp in alliance with an NGO called Cudesac. This pulp is then sold to Selva Nevada and WOK for the food industry and if the analysis of the pulp from Labfarve has a positive result, it could be sold for the cosmetic or health industry (http://minka-dev.com/en/blog/business-model-sustainable-use-corozo-de-lata). So far the business has a 300 kg/hour fruit pulper machine, expected to sell the first 2000 kg of pulp to Selva Nevada. On the next quarter, an agreement with Minka-Dev is expected to be signed to follow up on the development of the business to test its basic assumptions and guarantee the sustainability.

The main challenge in this quarter has been the delay in implementation activities from Nodo Guajira, improvements are expected to happen on the next quarter.

2.1.2. Component 2- Institutional Strengthening and Governance

As part of the clean cook stoves strategy, awareness and involvement of public institutions is critical to achieve critical mass for the escalation of this technology through the Caribbean and other regions of the country. Last

quarter an agreement was signed for USD40.000 with the Global Alliance for Clean Cookstoves to make the first international workshop to invigorate the clean cook stove sector in Colombia. The workshop took place on the 8th, 9th and 10th of October 2014, where experiences from Guatemala, Bolivia, United States, México, Perú, and Honduras where shared (Figure 2). In addition, Colombian organizations such as Ministry of Environment and Sustainable Development, Corporación Autónoma de la Cuenca del Río Negro y Nare CORNARE, Fundación Natura and Patrimonio Natural gave talks on their experiences in diverse subjects. This workshop showed Colombian energy, health, and environmental institutions how the problem of wood cooking is being addressed on other countries were aggressive measures have been taken. Given the success of the workshop, an amendment was done to the agreement for USD15.000 to make a web page and an initial characterization of Colombia's current technologies made by EnDev Perú (Figure 3).
http://www.estufaseficientescolombia.org/PRUEBA/paisajes-tecnologicos.html

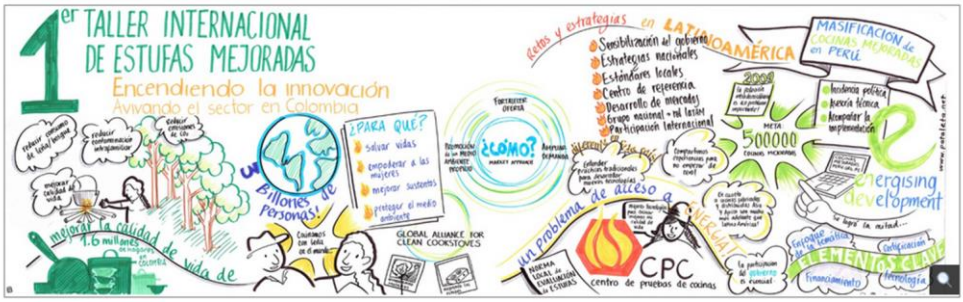


Figure 2: Picture of the first clean cook stoves international workshop.

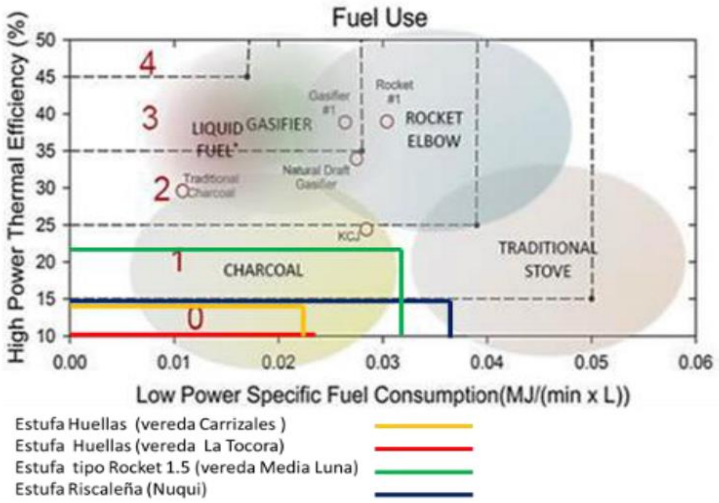


Figure 3: Efficiency of Colombia clean cook stoves. The green line is the stove designed by CLP.

Following the palm usage strategy and studies made by Universidad Nacional, a committee for the development of the National Management Plans was done. Additionally the required necessary studies of the corozo (Bactris guineensis) and amarga palm (Sabal mauritiiformis), are under way as an essential input for the management plans of these palms. The corozo palm studies and management plan will be a part of the corozo business model, providing the necessary information to design a sustainable harvesting system.

Lastly, an agreement was signed with PNUD for an amount of US$1,074,000, to implement a component of the GEF Dry Forest Conservation project, with the objective of establishing a social-environmental stakeholder platform to declare 18,000 hectares of protected areas and/or conservation agreements. The team began characterizations in three areas for the Caribbean: Cañas and Ancho Rivers in Dibulla, Guajira; Garupal River in Cesar; and Arroyo Grande in San Juan Nepomuceno. Also, three areas in the Andean region: Yaví River in Natagaima, Tolima; Aipe and Patá Rivers in Huila; and Dagua River in Valle del Cauca.

2.1.3. Component 3 – Social Capital and Community Participation

Community participation is at the heart of the program since territorial and farm planning, conservation strategies, monitoring activities and the clean cook stoves strategies are built with local communities.

This quarter the stove prototype was tested on the field by the beneficiaries to test its usefulness, and by a technical expert from Perú to test its efficiency (Picture 6). Four stoves where built with the campesino communities from Nodo Colorados which they kept to test. The conclusion of this exercise was that they needed less time to cook. In particular, there is a beneficiary that has a small business of selling a typical corn dough plate called “bollo”, with this stove the woman could cook 2 times more “bollos” than before. A byproduct of this test was that a group of 6 individuals from the region showed interest on building and selling the stove, and word of mouth spread through the region showing the benefits from the stove. On the other hand, the technical characterization showed the stove designed by CLP was more efficient than the other evaluated models (table 3, under the name Tipo Rocket 1,5), and additional recommendations to increase the efficiency arose. Next quarter it is expected to have the final prototype with the recommendations made by Perú technicians. After this prototype is finished at least 50 stoves will be installed

using an inclusive business model that will be developed and monitored with the help of experts organizations on social entrepreneurship.

Picture 6: Picture of the EnDev Peru team characterizing Colombian stoves.

Stove model	Efficiency
Huellas (La Tocora)	9%
Huellas (Carrizales)	14,2%
Riscaleña (Nuqui)	15%
Tipo Rocket 1,5 (CLP model)	22%

Table 3. Efficiency of cook stove models

Finally, on this quarter the collection of data to increase the diversity of the cattle farms through silvopastoral systems. It started with the collection of data by Alexander Navas, PhD. on silvo-pastoral systems in a series of workshops showing the benefits, and co-creating the ideal silvopastoral systems with the beneficiaries. From these workshops 34 tree species with multiple uses were seen to have potential to use in a wide arrange of silvo-pastoral systems. It was also possible to know from these workshops the preferences of silvo-pastoral systems from cattle ranchers of the region given their current practices. The results showed live fences, scattered trees, pasture alleyways, and small patches of forest as the preferred systems. This information will then be published and it is expected it will be widely accepted and implemented due to the methodology used.

3. SUMMARY

3.1. ACHIEVEMENTS

- Sign one new agreement for the development of production-conservation projects in Montes de María, Bolivar with Fundación Semana.
- Implementation of 64 production hectares on agroforestry system in Nodo Colorados.
- Finishing the corozo business model and starting a pilot to sell corozo pulp to restaurants and other business of the country with environmental and fair trade practices.

3.2. CHALLENGES AND ADJUSTMENTS

The main challenge in this quarter is the overall delay to implement activities in Nodo Guajira due to the lack of time of the beneficiaries to spend in the construction of their reservoirs and difficulties obtaining the posts for corridor isolation.

4. LIST OF ANNEXES

1) Program indicator progress.

2) Monitor Report.

3) Document with the general guidelines for the conservation and management of Rio Seco

Annex 1: Program indicator progress.

Indicator	Advance 1st.Q	Advance 2nd.Q	Advance 3rd. Q	Advance 4th. Q	Advance 1st.Q 2015	Total Advance	% accum. advance	Total goal
DO4-011 Number of beneficiaries with improved clean energy services due to USG assistance.				2500		2500	92,5	2700
DO4-001 Number of hectares of biological significance and/or natural under improved natural resource management as a result of USG assistance (F4.8.1-26)		10,08	553,15	1312,21	1608,2	3483,64	43,01	6.517
DO4-002 Number of institutions/public and private organizations with improved capacity for effective environmental resource management			10			10	38	26
DO4-012 Number of communities and other stakeholders adopting sustainable practices to improve biodiversity conservation.				6	4	10	28,5	35
FPN 1 Number of families benefited by the sustainable systems for conservation supported by the PPC.						98	32,7	300
FPN 3. Number of hectares in the process of sustainable production					98	98	19,6	500
F 4.8.1-29 Number of person hour of training in natural resources management and/or biodiversity conservation supported by USG assistance.	480	908	2317	726	1470	5901	53,65	9040